

REMARKS

In view of the above amendments and the following remarks, favorable reconsideration of the outstanding Office action is respectfully requested.

By virtue of the claim amendments supra, claim 22 is currently amended. Claims 1-21 and 32 were previously canceled without prejudice. Originally filed claims 23-31 remain unchanged in the present application. No new claim is added.

I. Amendments

The amendment to claim 22 is supported by paragraph [00031] and FIG. 3B of the present application. Therefore, no new matter is introduced as a result.

II. Rejections under 35 U.S.C. § 112

The Examiner has rejected claims 22-31 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserted that he “could not find any support for using fiber preforms in conjunction with sacrificial preforms. The closest support that Examiner would find was the use of a single preform (not preforms) along with two sacrificial preforms. This is deemed to be a prima facie showing of lack of support.”

Applicant submits that the current amendment to claim 22, presented above, has rendered this issue moot. Paragraph [0031] and FIG. 3b of the specification of the present application clearly describes the bonding of a fiber preform with two sacrificial preform sections, as is recognized and admitted by the Examiner.

The Examiner rejected claims 22-31 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner asserted that

“[c]laim 22, line 3 suggests that the sacrificial preforms are two of the ‘fiber preform’. However lines 5-6 indicates that the sacrificial preforms are not the fiber preforms. Since these two things contradict each other, it is deemed that one of ordinary skill would not know how to interpret the claims. There is no antecedent basis for ‘the lower sacrificial preform’. It is unclear if this requires that there be a lower sacrificial preform.

The last line of the claim calls for a sacrificial preform. To one of ordinary skill this suggests that the sacrificial preform is sacrificed (thrown away) – however the last line of the claim also requires that the optical fiber is made from the sacrificial preform – which suggests it is NOT sacrificed. Examiner then looked to the specification to see if there was any definition for “sacrificial preform” and could not find any.

Applicant respectfully traverses this rejection, with the above amendments to claim 22 duly taken into consideration.

Paragraph [0031] and FIG. 3b clearly indicates that the sacrificial preform sections are bonded with fiber preforms to form a blank for drawing. Thus the sacrificial preform sections per se are not regarded as part of the fiber preform 70 as illustrated in FIG. 3b. FIG. 3b clearly indicates the sacrificial sections (72 and 74) comprise a lower sacrificial section 74 placed in the lower part of the blank.

It is clear from the description of [0031] and FIG. 3b that at least part of each sacrificial section (72 and 74) is sacrificed during fiber drawing from the blank (72 is affixed to a holding or clamping mechanism, preventing it from being completely drawn into fiber; fiber is drawn from 74, but the initial part of 74 cannot be drawn into useable fiber for many applications, as is self-evident to one of ordinary skill in the art of fiber drawing). Thus the sacrificial preform sections in the present application means the upper or lower sections bonded to the fiber preform, and the sacrificial preform sections are at least partly sacrificed due to the fact that part of it either will not be drawn into fiber, or will be drawn into fiber that is not useable for normal intended purposes.

The Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. § 112.

III. Rejections under 35 U.S.C. § 103

In a rejection under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie obviousness case. If the Examiner does not produce a prima facie obviousness case, the applicant is under no obligation to submit evidences of non-obviousness. The MPEP, Eighth Edition, 2142.

A proper prima facie case of obviousness requires the examiner to satisfy three requirements. First, the prior art relied upon, coupled with knowledge generally available to one of ordinary skill in the art, must contain some suggestion which would have motivated one of ordinary skill to combine references. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Second, the examiner must show that, at the time the invention was made, the proposed modification had a reasonable expectation of success. See Amgen v. Chugai Pharm. Co., 927 F.2d 1200, 1209, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991). Finally, the combination of references must teach or suggest each and every limitation of the claimed invention. See In re Wilson, 424 F.2d 1832, 1385, 165 USPQ 494, 496 (CCPA 1970). Moreover, both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure. In re Vaeck, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991).

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 23 U.S.P.Q.2d 1780, 1783-84 (Fed. Cir. 1992).

(1) The rejection over Le Noane et al. (or Sterling et al.) in view of Gwo

The Examiner further rejected claims 22-31 under 35 U.S.C. § 103(a) as being unpatentable over Le Noane (United States Patent No. 4,407,667) (or Sterling (United States Patent No. 4,195,980)) in view of Gwo (United States Patent No. 6,284,085).

The Examiner asserted that

LeNoane (as well as Sterling) discloses the bonding of glass preforms, but not the temperature limitation. Gwo teaches that one can create a strong room-temperature bond in a manner which is simple and inexpensive. It would have been obvious to change the Le Noane (or the Sterling) process, by using the improved bonding procedures of Gwo, for the advantages of Gwo. Relevant portions of Gwo include the abstract, col. 1, lines 22-29, from col. 1, line 61 to col. 2, line 19, col. 3, lines 37-62; col. 6, lines 42-62.

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As to the sacrificial preforms. First it is noted that Examiner could not find a definition for "sacrificial preform". It is deemed that sacrifice is an intended use limitation that does not define over the LeNoane or Sterling methods. For example, one can designate that every even numbered preform is a regular fiber preform, and every odd numbered preform is a sacrificial preform. Most importantly, claim 22 requires drawing the optical fiber from the sacrificial preform. Clearly since Applicant's method of forming an optical fiber requires drawing a fiber from a sacrificial preform, one can draw a fiber from the LeNoane or Sterling sacrificial preform.

Applicant respectfully traverses the above rejections of claims 22-31, with the above claim amendments duly taken into consideration.

Sterling et al. teaches a method in which the fiber preforms are bonded at a temperature higher than 300°C. Le Noane et al. teaches the bonding of fiber preforms and drawing thereof into fibers. The limited teaching as to bonding of the preforms are reproduced as follows:

The bars are then successively introduced into the apparatus where they are welded to each other at a welding station, forming a part of the apparatus. Referring to FIGS. 3 and 4, there are shown two successive bars 7 and 8 being welded at station 10. The bars are guided and moved continuously by driving means, shown schematically in FIG. 3 as comprising two sets of rollers 11 placed upstream of welding station 9 and a set of centering rollers 12 placed downstream.

Column 4, lines 2-11, Le Noane et al.

Gwo teaches direct bonding of surfaces that can be effected at a low temperature. However, Gwo does not teach the direct bonding of fiber preforms.

However, none of the references Gwo, Le Noane et al. and Sterling et al. teaches or suggests the direct bonding of sacrificial fiber preforms with fiber preforms followed by drawing fiber from the lower sacrificial preform.

As discussed supra, sacrificial preform sections are bonded to the ends of the preform, thus forms the upper and lower end of the bonded unitary blank. At least part of the sacrificial preform sections are sacrificed during the fiber drawing process, meaning, at least part of the individual sacrificial preform section is not drawn into useable fiber during the fiber drawing process. The purpose of using the sacrificial preform sections is to increase the yield of the regular fiber preform 70 in FIG. 3b. Thus the sacrificial preform sections can be made from a material different from that of the regular fiber preform, or from the same material but is smaller/shorter than a regular preform. Due to their intended function and location, one of ordinary skill in the art knows that the sacrificial preform sections are different from regular fiber preforms in terms of geometry. Therefore, it is clear to one of ordinary skill in the art that the sacrificial preform sections are distinct from regular preforms, in view of the teachings in the specification of the present application, especially FIGs. 3a and 3b.

Le Noane et al. (or Sterling et al.) only teaches the bonding of regular preforms. Neither of them mentions a sacrificial preform in the meaning of the present invention.

Therefore, Applicant respectfully submits that the combination of Le Noane et al. (or Sterling et al.) with Gwo does not establish a prima facie obviousness case of claims 22-31, as amended, because the combination does not teach or suggest all the claim limitations.

Therefore, Applicant respectfully requests the Examiner withdraw this rejection under 35 U.S.C. § 103 over Le Noane et al. (or Sterling et al.) in view of Gwo of the outstanding claims 22-31.

IV. Conclusion

Applicant believes that the outstanding claims in the present application are in allowable form and requests a prompt issuance of notice of allowance thereon in the next Office action.

Applicant believes that an extension of one month is necessary and sufficient to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant additional time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Application Serial No.:
10/035,659

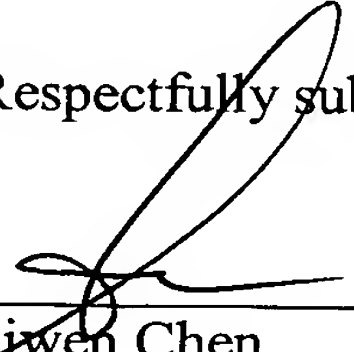
Attorney Docket No.:
SP01-302

The undersigned attorney is granted limited recognition by the Office of Discipline and Enrollment of the USPTO to practice before the USPTO in capacity as an employee of Corning Incorporated.

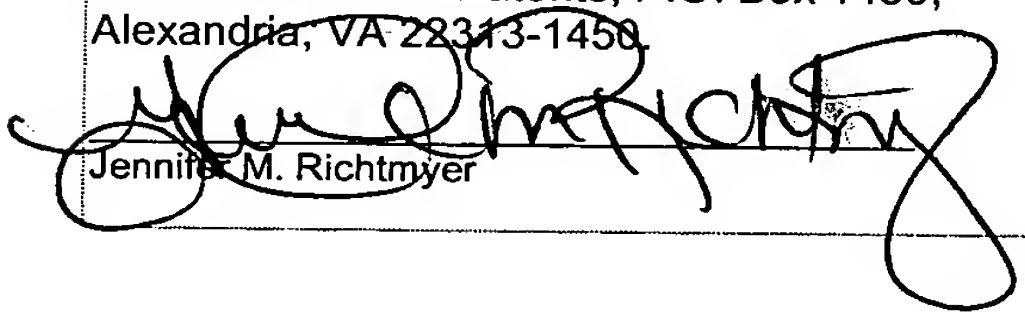
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Respectfully submitted,

Date: October 6, 2005


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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date indicated above with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


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